

What is claimed is:

1. A method for quantifying asymmetry of body positions during a movement, comprising:
synchronizing one or more sets of data, wherein each set of data comprises two
subsets of data, wherein one subset of data comprises body position
representations on a left side of a body and one subset of data comprises body
position representations on a right side of the body, and wherein each subset
of data comprises body position representations spanning the movement; and
calculating a value based on the one or more synchronized sets of data.
2. The method of claim 1 wherein the body positions are angles of joints.
3. The method of claim 1 wherein the body positions are angles of corresponding joints.
4. The method of claim 1 wherein the movement comprises one or more cycles.
5. The method of claim 1 further comprising creating a figure by graphing the body position
representations in the synchronized set of data.
6. The method of claim 5 wherein the figure is a cyclogram.
7. The method of claim 6 wherein the calculated value is an area of the cyclogram.
8. The method of claim 6 wherein the calculated value is an orientation of the cyclogram.
9. The method of claim 6 wherein the calculated value is a minimum moment magnitude of
the cyclogram.
10. The method of claim 1 further comprising comparing the calculated value to a
corresponding calculated value of a perfectly symmetrical movement or a baseline movement.
11. The method of claim 1 wherein synchronizing a set of data comprises associating a body
position representation in one subset of data with a body position representation in another subset
of data such that associated body position representations each refer to a corresponding event in
the movement.

12. A method for quantifying asymmetry of joint angles during a cycle of movement, comprising:

obtaining a set of data entries, wherein a data entry consists of one or more pairs of angle measurements, a pair comprising one angle measurement for a left joint and one angle measurement for a corresponding right joint at a same point in time, and wherein the set comprises data entries spanning the cycle of movement;

synchronizing the set of data entries;

generating a cyclogram;

calculating a characteristic of the generated cyclogram; and

comparing the characteristic to a corresponding characteristic of a cyclogram representing a perfectly symmetrical gait.

13. A system for quantifying asymmetry of body positions during a movement, comprising:

a synchronizing module that synchronizes one or more sets of data, wherein each set of data comprises two subsets of data, wherein one subset of data comprises body position representations on a left side of a body and one subset of data comprises body position representations on a right side of the body, and wherein each subset of data comprises body position representations spanning the movement; and

a calculating module that calculates a value based on the one or more synchronized sets of data.

14. A computer program product for quantifying asymmetry of body positions during a movement, including a computer readable medium, which comprises instructions to perform the following:

synchronizing one or more sets of data, wherein each set of data comprises two subsets of data, wherein one subset of data comprises body position representations on a left side of a body and one subset of data comprises body position representations on a right side of the body, and wherein each subset of data comprises body position representations spanning the movement; and calculating a value based on the one or more synchronized sets of data.